



SEQUENCE LISTING

<110> SCHMIDT, Harald
ZABEL, Ulrike
POLLER, Wolfgang

<120> Isolated and Purified Human Soluble
Guanylylcyclase alphal/betal (hsGC alphal/betal)

<130> VOS-101

<140> US 09/762,767
<141> 2001-06-01

<150> PCT/DE99/02601
<151> 1999-08-16

<150> DE 198 37 015.6
<151> 1998-08-14

<160> 19

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<213> homo sapiens

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<212> PRT
<213> homo sapiens

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Ala Ala Gly Ser Ser Glu Ser Cys Lys Ala Thr Val Pro Ile Cys Gln
35 40 45
Asp Ile Pro Glu Lys Asn Ile Gln Glu Ser Leu Pro Gln Arg Lys Thr
50 55 60
Ser Arg Ser Arg Val Tyr Leu His Thr Leu Ala Glu Ser Ile Cys Lys
65 70 75 80
Leu Ile Phe Pro Glu Phe Glu Arg Leu Asn Val Ala Leu Gln Arg Thr
85 90 95
Leu Ala Lys His Lys Ile Lys Glu Ser Arg Lys Ser Leu Glu Arg Glu
100 105 110
Asp Phe Glu Lys Thr Ile Ala Glu Gln Ala Val Ala Gly Val Pro
115 120 125

Val Glu Val Ile Lys Glu Ser Leu Gly Glu Glu Val Phe Lys Ile Cys
130 135 140
Tyr Glu Glu Asp Glu Asn Ile Leu Gly Val Val Gly Gly Thr Leu Lys
145 150 155 160
Asp Phe Leu Asn Ser Phe Ser Thr Leu Leu Lys Gln Ser Ser His Cys
165 170 175
Gln Glu Ala Gly Lys Arg Gly Arg Leu Glu Asp Ala Ser Ile Leu Cys
180 185 190
Leu Asp Lys Glu Asp Asp Phe Leu His Val Tyr Tyr Phe Phe Pro Lys
195 200 205
Arg Thr Thr Ser Leu Ile Leu Pro Gly Ile Ile Lys Ala Ala Ala His
210 215 220
Val Leu Tyr Glu Thr Glu Val Glu Val Ser Leu Met Pro Pro Cys Phe
225 230 235 240
His Asn Asp Cys Ser Glu Phe Val Asn Gln Pro Tyr Leu Leu Tyr Ser
245 250 255
Val His Met Lys Ser Thr Lys Pro Ser Leu Ser Pro Ser Lys Pro Gln
260 265 270
Ser Ser Leu Val Ile Pro Thr Ser Leu Phe Cys Lys Thr Phe Pro Phe
275 280 285
His Phe Met Phe Asp Lys Asp Met Thr Ile Leu Gln Phe Gly Asn Gly
290 295 300
Ile Arg Arg Leu Met Asn Arg Arg Asp Phe Gln Gly Lys Pro Asn Phe
305 310 315 320
Glu Glu Tyr Phe Glu Ile Leu Thr Pro Lys Ile Asn Gln Thr Phe Ser
325 330 335
Gly Ile Met Thr Met Leu Asn Met Gln Phe Val Val Arg Val Arg Arg
340 345 350
Trp Asp Asn Ser Val Lys Lys Ser Ser Arg Val Met Asp Leu Lys Gly
355 360 365
Gln Met Ile Tyr Ile Val Glu Ser Ser Ala Ile Leu Phe Leu Gly Ser
370 375 380
Pro Cys Val Asp Arg Leu Glu Asp Phe Thr Gly Arg Gly Leu Tyr Leu
385 390 395 400
Ser Asp Ile Pro Ile His Asn Ala Leu Arg Asp Val Val Leu Ile Gly
405 410 415
Glu Gln Ala Arg Ala Gln Asp Gly Leu Lys Lys Arg Leu Gly Lys Leu
420 425 430
Lys Ala Thr Leu Glu Gln Ala His Gln Ala Leu Glu Glu Lys Lys
435 440 445
Lys Thr Val Asp Leu Leu Cys Ser Ile Phe Pro Cys Glu Val Ala Gln
450 455 460
Gln Leu Trp Gln Gly Gln Val Val Gln Ala Lys Lys Phe Ser Asn Val
465 470 475 480
Thr Met Leu Phe Ser Asp Ile Val Gly Phe Thr Ala Ile Cys Ser Gln
485 490 495
Cys Ser Pro Leu Gln Val Ile Thr Met Leu Asn Ala Leu Tyr Thr Arg
500 505 510
Phe Asp Gln Gln Cys Gly Glu Leu Asp Val Tyr Lys Val Glu Thr Ile
515 520 525
Gly Asp Ala Tyr Cys Val Ala Gly Gly Leu His Lys Glu Ser Asp Thr
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His Ala Val Gln Ile Ala Leu Met Ala Leu Lys Met Met Glu Leu Ser

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Leu	His	Ser	Gly	Ser	Val	Phe	Ala	Gly	Val	Val	Gly	Val	Lys	Met	Pro
580	585	590													
Arg	Tyr	Cys	Leu	Phe	Gly	Asn	Asn	Val	Thr	Leu	Ala	Asn	Lys	Phe	Glu
595	600	605													
Ser	Cys	Ser	Val	Pro	Arg	Lys	Ile	Asn	Val	Ser	Pro	Thr	Thr	Tyr	Arg
610	615	620													
Leu	Leu	Lys	Asp	Cys	Pro	Gly	Phe	Val	Phe	Thr	Pro	Arg	Ser	Arg	Glu
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Glu	Leu	Pro	Pro	Asn	Phe	Pro	Ser	Glu	Ile	Pro	Gly	Ile	Cys	His	Phe
645	650	655													
Leu	Asp	Ala	Tyr	Gln	Gln	Gly	Thr	Asn	Ser	Lys	Pro	Cys	Phe	Gln	Lys
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<211> 2443

<212> DNA

<213> homo sapiens

<400> 3

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<212> PRT
<213> homo sapiens

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35 40 45
Tyr Asp Leu Val Ala Ala Ala Ser Lys Val Leu Asn Leu Asn Ala Gly
50 55 60
Glu Ile Leu Gln Met Phe Gly Lys Met Phe Phe Val Phe Cys Gln Glu
65 70 75 80
Ser Gly Tyr Asp Thr Ile Leu Arg Val Leu Gly Ser Asn Val Arg Glu
85 90 95
Phe Leu Gln Asn Leu Asp Ala Leu His Asp His Leu Ala Thr Ile Tyr
100 105 110
Pro Gly Met Arg Ala Pro Ser Phe Arg Cys Thr Asp Ala Glu Lys Gly
115 120 125
Lys Gly Leu Ile Leu His Tyr Tyr Ser Glu Arg Glu Gly Leu Gln Asp
130 135 140
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145 150 155 160
Glu Ile Asp Met Lys Val Ile Gln Gln Arg Asn Glu Glu Cys Asp His
165 170 175
Thr Gln Phe Leu Ile Glu Glu Lys Glu Ser Lys Glu Glu Asp Phe Tyr
180 185 190
Glu Asp Leu Asp Arg Phe Glu Glu Asn Gly Thr Gln Glu Ser Arg Ile
195 200 205
Ser Pro Tyr Thr Phe Cys Lys Ala Phe Pro Phe His Ile Ile Phe Asp
210 215 220
Arg Asp Leu Val Val Thr Gln Cys Gly Asn Ala Ile Tyr Arg Val Leu
225 230 235 240
Pro Gln Leu Gln Pro Gly Asn Cys Ser Leu Leu Ser Val Phe Ser Leu
245 250 255
Val Arg Pro His Ile Asp Ile Ser Phe His Gly Ile Leu Ser His Ile

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Arg Leu Lys Gly Gln Met Ile Tyr Leu Pro Glu Ala Asp Ser Ile Leu		
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325	330	335
Gly Leu Tyr Leu Ser Asp Ile Pro Leu His Asp Ala Thr Arg Asp Leu		
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420	425	430
Phe Cys Ser Lys His Ala Ser Gly Glu Gly Ala Met Lys Ile Val Asn		
435	440	445
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450	455	460
Lys Asn Pro Phe Val Tyr Lys Val Glu Thr Val Gly Asp Lys Tyr Met		
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Thr Val Ser Gly Leu Pro Glu Pro Cys Ile His His Ala Arg Ser Ile		
485	490	495
Cys His Leu Ala Leu Asp Met Met Glu Ile Ala Gly Gln Val Gln Val		
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Asp Gly Glu Ser Val Gln Ile Thr Ile Gly Ile His Thr Gly Glu Val		
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Val Thr Gly Val Ile Gly Gln Arg Met Pro Arg Tyr Cys Leu Phe Gly		
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545	550	555
Lys Ile Asn Val Ser Glu Tyr Thr Tyr Arg Cys Leu Met Ser Pro Glu		
565	570	575
Asn Ser Asp Pro Gln Phe His Leu Glu His Arg Gly Pro Val Ser Met		
580	585	590
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595	600	605
Thr Gly Thr Glu Glu Thr Lys Gln Asp Asp Asp		
610	615	

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<212> PRT
<213> homo sapiens

<400> 5

Phe Thr Pro Arg Ser Arg Glu Glu Leu Pro Pro Asn Phe Pro
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<210> 6
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 6
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1 5 10 15
Thr Gly Thr Glu Glu Thr
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<210> 7
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<212> DNA
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<220>
<223> PCR primer

<400> 7
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<400> 8
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<220>
<223> PCR primer

<400> 9
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<210> 10
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<223> PCR primer .

<400> 10
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20

<210> 11
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<213> Artificial Sequence

<220>
<223> conserved guanylyl cyclase sequence

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Leu Pro

<210> 12
<211> 13
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<213> homo sapiens

<400> 12
Tyr Gly Pro Glu Val Trp Glu Asp Ile Lys Lys Glu Ala
1 5 10

<210> 13
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Conserved guanylyl cyclase sequence

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Gly Ile Asp

<210> 14
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<213> Bos taurus

<400> 14

Ser Arg Lys Asn Thr Gly Thr Glu Glu Thr Glu Gln Asp Glu Asn
1 5 10 15

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<212> DNA
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<220>
<223> cloning site

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47

<210> 16
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<212> DNA
<213> Artificial Sequence

<220>
<223> cloning site

<400> 16
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46

<210> 17
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<213> homo sapiens

<400> 17
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38

<210> 18
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<210> 19
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<400> 19
Leu Val Pro Arg Cys Ser
1 5